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# OFFICE OF THE COMMISSIONER



## ANNUAL REPORT

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C O R O N E R

Assistant Coroner  
Administrative

3 Physician  
Specialists

1 Senior Physician  
Specialist

1 Toxicologist

10 Coroner's  
Investigators

1 Coroner's  
Estate  
Investigator

1 Senior Clerk  
Typist  
1 Medical Clerk  
Stenographer  
3 Medical  
Transcriber  
Typists

1 Assistant  
Toxicologist

2 Medical  
Technologists

3-1/4 Senior  
Morgue  
Attendants

1 Court  
Reporter

*SAN FRANCISCO*  
*CORNER*  
*Annual Report*  
*1972-73*



4-10-53

DEFINITION OF TERMS USED

ALKALOID OF MORPHINE GROUP	The substance identified following an injection of morphine, heroin, etc.
ELIM. (ELIMINATED)	Indicates deceased lived long enough after injury to have eliminated all toxic agents from his body.
MODE OF DEATH	Indicates the manner of death, such as natural, accident, suicide or homicide, and is to be distinguished from cause of death which is purely a medical determination.
MULTIPLE VEHICLE	More than one vehicle involved.
SINGLE VEHICLE	Vehicle struck pole, wall, divider, etc. without the influence of another vehicle.
NON-TRAFFIC	Accident occurred off the street in driveway, garage, etc.
MODE UNKNOWN	Circumstances totally unknown as when only bones are found or when no medical cause of death is determined, or when it cannot be said whether natural or accident as when an elderly person dies some time after a fractured hip.
MODE EQUIVOCAL	As, for example, when it cannot be decided whether death was suicide or accident or, for example, accident versus homicide.





OFFICE OF THE CORONER

The Coroner is a county officer charged with the responsibility of investigating certain deaths, acting under authority of provisions of the California Penal Code, the Government Code, and the Health and Safety Code. In San Francisco the position requires a physician with advanced training in the special area of pathology.

Any death reported to the coroner shall be subject to a preliminary inquiry which shall be properly recorded, after which the coroner will proceed with a full investigation if the circumstances warrant. If, from the preliminary investigation, the case does not prove to fall within the coroner's jurisdiction, he will so advise the physician in attendance. Cases falling under the coroner's jurisdiction will be fully investigated at the scene of death and, where warranted, undergo a complete forensic autopsy with toxicological examination. Accordingly, "reportable cases" are to be distinguished from "coroner's cases". While the duty to report certain cases continues, the decision on whether there shall be a full investigation rests with the coroner.

It is the legal duty of any person having knowledge thereof to report to the coroner any death which falls into the classes herein listed. This duty applies equally to physicians, hospital house officers, morticians, embalmers, ambulance attendants, police officers, nurses, as well as lay persons.

The coroner is legally obligated to show the cause of death and, when trauma or criminality is involved, the degree of extent of injuries. This information is then prepared and presented as expert medico-legal testimony for prosecution or defense in legal proceedings.

Deaths required by law to be reported to the coroner:

1. Homicide - Known or suspected
2. Suicide - Known or suspected
3. Accident) (Whether the accident or injury is the pri-
4. Injury ) mary cause or only contributory; whether
- ) the accident or injury occurred immediately
- ) or remotely to the death.)
5. Grounds to suspect that the death occurred in any degree from a criminal act.
6. No physician in attendance.
7. In the continued absence of the physician (not having seen the patient in the 10 days prior to death).
8. Physician unable to state the cause of death. (The physician must be genuinely unable and not merely unwilling.)
9. Poisoning (food, chemical, drug, therapeutic agents).





10. Occupational or industrial deaths.
- 11.A All deaths in operating rooms.
12. All deaths where a patient has not fully recovered from an anesthetic, whether in surgery, recovery room or elsewhere.
13. All solitary deaths.
14. All deaths in which the patient is comatose throughout the period of the physician's attendance.
15. All deaths of unidentified persons.
16. It is suggested that patients under medical care less than 24 hours prior to death be reported to the coroner.
17. Known or suspected contagious disease and constituting a public hazard.
18. Deaths in prison or while under sentence.

The Coroner's Office is divided into the following departments:

1. The Autopsy Department is staffed by three pathologists (board certified physicians) who work part time. Each is recognized as an expert in forensic pathology. They performed 2371 autopsies during the fiscal year. Autopsies are performed twice a day, seven days a week. The autopsy surgeons are assisted by three full-time and one part-time morgue attendants who also prepare and deliver the bodies to the morticians and maintain the premises of the autopsy department. These pathologists made approximately 325 appearances in court and before the Grand Jury as part of their duties. They also held approximately 500 consultations with assistant district attorneys and homicide investigators.
2. The Pathology Department has one part-time senior pathologist and two full-time technologists. There were 1,116 cases referred to this department. There were 2,509 microscopic slides made from 7,001 portions of tissue from some 2,180 various organs. There were 634 special stains used in the microscopic examinations. 89 ABO, Rh<sub>0</sub> blood groupings were done, as were 118 special chemical determinations.
3. The Toxicology Department has one part-time toxicologist and one full-time assistant toxicologist. There were 2,360 cases referred to this department and 12,150 individual tests performed.
4. Investigative Department There are ten coroner's investigators who staff the department in two-man crews 24 hours per day. Only one ambulance, with its two-man crew, is available each eight hour shift to investigate all reported deaths in the city. This crew responds to the scene of each reported death which potentially falls within the



coroner's jurisdiction. Last year, approximately 5,000 such trips were made. At each scene, these trained investigators reviewed the evidence, interviewed witnesses and searched the place of death for evidence of valuable property. 1615 additional deaths were reported and, after an initial investigation, found suitable for certification by the family physician rather than falling under the jurisdiction of the coroner.

5. Legal Department There is one certified court reporter on a part-time basis. The transcribing of testimony of witnesses at inquests and the sale of the transcripts is in accord with the provisions of the Government Code of Counties.
6. Clerical staff This department includes one medical clerk stenographer, one senior clerk and three medical transcriber typists. The Coroner's Estate Investigator has the responsibility of verifying the inventories property of the deceased, determining the legal next of kin and to deposit all cash or distribute the property to the rightful recipients as outlined in the Probate Code. This includes the handling and interpretation of wills, letters, etc.



FISCAL YEAR 1972-73

Total deaths in County	9350
Total deaths reported to Coroner	3986
Cases reported, investigated and cleared by the coroner for physician's signature	1615
Coroner's Cases	2371

Percent of all deaths in San Francisco County reported to Coroner	43%
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Percent of all County deaths having Coroner's autopsies	25%
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Cases accepted by Coroner	2372
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1. Natural deaths	1548
2. Accidents	441
3. Suicides	227
4. Homicides	94
5. Mode equivocal	52
6. Cause unknown	9

Autopsies performed	2372
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Burials authorized by Coroner	221
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1. Indigents and fetuses buried by City	162
2. Veterans buried by funeral homes on ro- tation basis	29
3. Cases buried by funeral homes on ro- tation basis with Public Administrator controlled funds	30

Inquests

1. Inquests held	57
2. Jurors summoned	12
3. Witnesses summoned	237





Identification

1. Persons brought to Coroner's Office with insufficient identification	257
2. Persons subsequently identified by fingerprints, dental x-ray or other means	257
3. Persons buried as unidentified	0
4. Fingerprints taken and forwarded to F.B.I., California C.I.I. or S.F. Police Department	2387



-3-

ABUSE OF DRUGS

Barbiturates: 91

Accidents.....19  
Suicides.....69  
Equivocal..... 3

91 deaths where barbiturates were the sole cause or were in significant combination with other drugs or alcohol.

Heroin: 58

This figure reflects lethal levels of alkaloid of morphine group which is the metabolic result of injecting heroin. They are cases where heroin was considered to be the primary culprit although a combination of drugs may have been found. They do not reflect all drug oriented deaths where the deceased may have been under the influence of "hard narcotics" at the time of injury.

Heroin or its metabolic derivative were found in 15 other cases, but were not considered the proximate cause of death.

Heroin Age Breakdown:

Under							Over		
21	21-25	26-30	31-35	36-40	41-45	46-50	50	Male	Female
6	8	17	12	3	4	5	2	53	6

Caucasian: 42      Negro: 18      Chinese: 1

Methamphetamine: 1 25 year old male, Negro.

Methadone and Amphetamine: 1 23 year old male, Caucasian.

PCP: 1 21 year old male, Caucasian



# VIOLENT DEATHS

There were 2371 cases brought to the Coroner's Office and autopsied. Of these cases, 814 were determined to be due to violence, or that some trauma was involved.

Mode	Total No.	% of Total Coroner's Cases	% of Total County Deaths (9350)
Accident	441	18%	5%
Motor Vehicle (122)			
At Home (171)			
Away from Home (136)			
Industrial (12)			
Suicide	227	9.0%	2.4%
Homicide	94	3.9%	1.0%
Other Violent Deaths of Mode Equivocal	52	2.1%	.05%

## Accident - Vehicle

Total number of vehicular deaths 122

<u>Auto and Motorcycle</u>	<u>Other</u>
115	7

## Ages in Vehicular Deaths

Under 20	20-29	30-39	40-49	50-59	60-69	Over 70
24	28	13	16	17	6	18

## Intoxicants and Vehicular Deaths

Alcohol			Barbiturate			Sex		Position of Deceased		
Pos.	Neg.	Elim.*	Pos.	Neg.	Elim.*	Male	Female	Pedes.	Passen.	Driver
29	40	53	0	69	53	75	47	51	29	42

\* Hospitalized long enough that any toxic agent, if present, would have been eliminated. Therefore, we cannot determine, at autopsy, whether alcohol or drugs was or was not involved.





Accident - At Home

Total number of accidents at home

171

	SEX		RACE		ALCOHOL			BARBITURATE		
	Male	Fem.	White	Non-white	Pos.	Neg.	Elim.	Pos.	Neg.	Elim
ASPHYXIA										
Food bolus	2	1	3	0	2	1	0	0	3	0
Infants	0	0	0	0	0	0	0	0	0	0
Other	1	0	1	0	0	1	0	0	1	0
FIREARMS	1	0	1	0	0	1	0	0	1	0
BURNS	20	19	35	4	13	8	18	1	20	18
FALLS	31	31	52	10	7	20	35	0	27	35
CARBON MONOXIDE	2	1	3	0	1	2	0	0	3	0
MISC.	0	1	1	0	1	0	0	0	1	0
TOXIC POISON	45	17	46	16	24	34	4	16	44	2



Accident - Away from Home

Total number of accidents away  
from home

136

	SEX		RACE		ALCOHOL			BARBITURATE		
	Male	Fem.	White	Non-white	Pos.	Neg.	Elim.	Pos.	Neg.	Elim.
ASPHYXIA										
Food Bolus	7	2	8	1	5	4	0	0	9	0
Infant	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-
BURNS**	7	1	6	2	1	2	5	0	3	5
FALLS	46	9	49	6	10	14	31	2	22	31
FIREARMS	0	1	1	0	0	0	1	0	0	0
TOXIC POISON	27	11	29	9	15	20	3	9	26	3
CARBON MONOXIDE*	0	2	1	1	0	2	0	0	2	0
MISC.	15	7	14	8	5	17	0	0	22	0

\*\*Outside San Francisco County  
Burns: 3

\* Gas appliance - 1, Auto - 1



Accident Industrial

Total number of industrial accidents

12

	SEX		ALCOHOL			BARBITURATE		
	Male	Female	Pos.	Neg.	Elim.	Pos.	Neg.	Elim.
ASPHYXIATION	-	-	-	-	-	-	-	-
BURNS	4	0	0	4	0	0	4	0
CRUSHING	2	0	0	2	0	0	2	0
STRUCK BY OBJECT	2	0	0	2	0	0	2	0
FALLS	3	0	0	3	0	0	3	0
MISC.	1	0	0	1	0	0	1	0





Suicide

Total number of suicides

227

Method	1972						1973						Total
	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	
Asphyxia	1	1	1	2	1	3	2	1	3	3	3	3	24
Cutting or stab- bing	0	0	1	0	0	0	1	1	0	1	0	0	4
Firearms	6	2	2	3	4	4	5	5	3	6	4	3	47
Jumping	4	4	2	3	3	5	6	4	5	5	4	3	48
Poisoning	8	7	8	11	6	9	8	5	9	3	8	15	97
Misc.	1	0	0	0	3	1	0	0	0	0	1	1	7

Male:	128	White:	206	Alcohol Present:	57
Female:	99	Negro:	13		
		Oriental:	8		

Comparison by Years

Method	1965-66	'66-67	'67-68	'68-69	'69-70	'70-71	'71-72	'72-73
Hand guns	15	35	27	50	33	32	38	33
G.G. Bridge	16	9	23	10	14	20	28	16
*Barbiturate	84	87	106	102	114	75	74	69
Alcohol Present	27	26	27	66	96	71	104	57

Yearly Comparison  
Total Number of Suicides

1965-66	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
233	234	237	246	281	263	296	227

\* Barbiturate as the cause of death or in combination with alcohol or other drugs.



Homicide\*

Total number of homicides

94

Homicide-Mechanism

Blunt Trauma	Cutting- Stabbing	Firearms	Strangulation	Other	Total
16	25	45	4	4	94

Homicide-Motive

During or following an argument with:

Spouse	Relative	Non- relative	Unknown to Deceased	Robbery	Citizen + Police	Unknown
3	3	48	1	15	4	20

Homicide - Monthly Comparison

1971 July	Aug	Sept	Oct	Nov	Dec	1972 Jan	Feb	Mar	Apr	May	June
9	8	3	6	6	12	9	11	7	8	11	4

Comparison by Years

1965-66	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73
59	79	83	141	129	107	110	94

Equivocal Homicide Vs. ?: There were 33 deaths investigated jointly by the Coroner's Office and Homicide Bureau where the mode was unresolved. There was sufficient trauma and of such a nature as to leave doubt in the mind of the Coroner that (1) the injury was caused by the criminal act of another or (2) to what extent the injury hastened or caused the death.

\*Homicide is the killing of one human being by another. The above tables reflect all homicides and are not restricted to murder which is the unlawful killing of a human being, with malice.



MODE OF DEATH BY MONTH

	1972					1973							Total
	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	
Natural Deaths	138	139	134	112	122	169	174	106	115	112	101	126	1548
Accidents: Vehicular	6	4	9	13	13	14	14	9	11	7	13	9	122
At home	14	12	10	10	14	26	19	10	13	19	14	10	171
Away from home	17	14	11	10	7	20	11	11	10	6	11	8	136
Industrial	-	-	-	1	5	1	1	-	1	-	2	1	12
Suicides	20	14	14	19	17	22	22	16	20	18	20	25	227
Homicides	9	8	3	6	6	12	9	11	7	8	11	4	94
Cause unknown	0	0	0	1	0	0	3	1	2	0	3	0	10
Mode Equivocal	1	2	2	2	5	5	6	5	3	5	6	10	52

COMPARISON BY YEARS

1964-65 1965-66 1966-67 1967-68 1968-69 1969-70 1970-71 1971-72 1972-73

Accidents									
Motor Vehicle	104	114	99	102	129	112	105	113	122
Non-vehicular	249	245	244	256	286	365	370	352	319
Suicides	199	233	234	237	246	281	263	296	227
Homicides	55	59	79	83	141	129	107	110	94





## MONTHLY FIGURES

-16-

YEAR	TOTAL CORONER'S CASES	CASES REFERRED TO PATHOLOGIST	NO. OF ORGANS SUBMITTED	PATHOLOGY * NO. OF SECTIONS TAKEN	HISTO- PATHOLOGIC SLIDES MADE	SPECIAL STAINS**	BLOOD GROUP- INGS***	OTHER DEFER- TIONS****
1972								
JULY	205	85	136	523	165	38	8	17
AUG	193	70	110	357	131	44	7	10
SEPT	183	63	126	442	137	36	3	6
OCT	174	86	175	587	215	58	9	8
NOV	189	103	180	598	216	40	3	11
DEC	269	129	222	723	266	86	15	9
1973								
JAN	259	128	235	825	280	72	9	13
FEB	169	80	149	546	212	45	9	7
MAR	182	91	156	568	216	56	6	3
APR	175	89	151	578	216	39	6	11
MAY	181	97	184	629	233	66	9	11
JUNE	193	95	169	625	222	54	5	12
TOTALS	2372	1116	1993	7001	2509	634	89	118

\*These figures do not reflect photography, forensic radiology or material prepared for teaching forensic pathology

\*\*Includes smears examined for bacteria and spermatozoa

\*\*\*ABO and Anti Rh

\*\*\*Blood, urine, water, evidence - for hematology, biochemistry, urinalysis, bacteriology, serology, "Sickledex", etc.



UNIT COST

TOTAL BUDGET: \$462,607

ADMINISTRATION

1	Coroner		
	Unit Cost (3986 cases)	\$29,846	<u>\$7.49 per case</u>

INVESTIGATION

Including removal, transportation and care of bodies

1	Asst. Coroner, Adm.	\$ 15,678	
10	Coroner's Investigators	124,551	
	Overtime	2,500	
	Holidays	6,294	
	Vacation and sick relief	16,850	
	Maintenance of autos	1,448	
	Telephone directory service	135	
	Tires and tubes	195	
	Gasoline	905	
	Laundry	640	
	Cleaning equipment supplies	222	
	Sheets	653	
	TOTAL	<u>\$170,071</u>	<u>\$42.66 per case</u>

(for 3986 cases investigated)

CLERICAL

1	Estate Investigator	\$ 10,592	
1	Medical Clerk Stenographer	9,780	
1	Senior Clerk Typist	9,050	
3	Med. Transcriber Typists	23,686	
	Holidays	1,959	
	Vacation and sick relief	343	
	Maintenance and repair office equipment	294	
	Postage	540	
	Stationary and stationary withdrawals	1,836	
	TOTAL	<u>\$ 58,080</u>	<u>\$14.57 per case</u>

SCIENTIFIC - AUTOPSY (2371 cases autopsied)\*

3	Physician specialists, part-time	\$ 61,893	
3 $\frac{1}{4}$	Morgue attendants	33,961	
	Vacation and sick relief	5,384	
	Holidays	759	
	TOTAL	<u>\$101,997</u>	<u>\$43.02 per autopsy</u>

\*Includes all appearances in court and grand jury and consultations with district attorneys and homicide inspectors before court appearances.



SCIENTIFIC - TOXICOLOGY (2371 cases referred)\*

1	Toxicologist (part-time)	\$ 19,169
1	Assistant Toxicologist	16,094
	Vacation relief	3,462
	Maintenance of Lab.equipment	227
	Toxicology supplies	1,350

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TOTAL \$ 40,302

\$ 17.00 per case

\*For 11,235 individual tests for alcohol, barbiturates, narcotics etc., includes all appearances in court and grand jury and consultation with district attorneys and homicide inspectors before court appearances.

SCIENTIFIC - PATHOLOGY (1116 cases referred)\*

1	Pathologist (part-time)	\$ 21,138
2	Technologists	25,350
	Holidays	708
	Vacation and sick relief	4,605
	Maintenance of Lab.equipment	227
	Pathology supplies	3,510

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TOTAL \$ 55,538

\$ 49.76 per case

\*For 7,001 tests of tissues, body fluids etc. for both microscopic and laboratory study. Includes all appearances in court and grand jury and consultation with district attorneys and homicide inspectors before court appearances.

LEGAL

1	Court reporter (part-time)	\$ 6,773
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TOTAL \$ 6,773

\$118.83 per inquest



# TOXICOLOGY

July 1972 - June 1973

## Incidence of various drugs or poisons found singly or in combination:

These are not necessarily the cause of death or even a contributing cause. These figures reflect toxic agents present in the body to any degree. Any one case may have more than one drug or poison.

Acetone	6	Ethchlorvynol (Placidyl)	5
Alcohols		Ephedrine	1
Isopropyl	1	Flurazepam (Dalmane)	2
Methyl	2	Freon propellants	1
Alkaloid of		Glutethimide (Doriden)	3
morphine group	80	Hydrochlorothiazide	1
Amitriptyline (Elavil)	9	Hydroxyzine	1
Amphetamine	5	Imipramine (Tofranil)	2
Barbiturate		Lithium	1
Amobarbital	15	Meprobamate	4
Barbital	1	Methadone	5
Butabarbital	3	Methamphetamine	4
Pentobarbital	46	Methapyrilene	3
Phenobarbital	54	Methaqualone (Quaalude)	4
Secobarbital	50	Methylprylon (Noludar)	1
Carbon Monoxide	33	Methylphenidate (Ritalin)	1
Chloral Hydrate	5	Nortryptaline	1
Chlordiazepoxide		Paraldehyde	1
(Librium)	4	Pentozocine	1
Chloroform	1	Phencyclidene	2
Chlorpromazine		Phenothiazine	2
(Thorazine)	5	Propoxyphene (Darvon)	13
Cobalt	1	Quinidine	1
Codeine	18	Salicylates	7
Copper	1	Theophylline	1
Cyanide	1	Thioridazine	
Desmethylimipramine	1	(Mellaril)	3
Diazepam (Valium)	15		
1.8 Dihydroanthraquinone	1		
Diphenhydramine			
(Benadryl)	1		
Diphenylhydantoin			
(Dilantin)	8		
Disulfiram (Antabuse)	1		







YEAR	CASES REFERRED TO TOXICOLOGIST	NO. OF SPECIMENS ANALYZED	NO. OF SEPARATE TESTS PERFORMED	GENERAL TOXICOLOGIC EXAMINATIONS	TESTED	ALCOHOL		BARBITURATE		
						POS.	NEG	TESTED	POS.	NEG.
1972										
JULY	216	250	556	4	213	57	156	216	8	208
AUGUST	193	233	526	1	188	56	132	192	10	182
SEPT	165	191	434	2	164	36	128	165	8	157
OCT	190	240	560	6	190	55	135	190	13	177
NOV	185	221	499	7	185	41	144	185	7	178
DEC	246	286	673	8	243	64	179	246	12	234
1973										
JAN	287	345	791	5	287	62	225	287	18	269
FEB	177	210	467	3	177	37	140	177	15	162
MAR	169	202	464	6	169	36	133	169	11	158
APR	176	199	458	4	176	31	145	176	10	166
MAY	184	257	445	9	183	42	141	184	14	170
JUN	186	221	493	5	184	36	148	186	11	175
TOTALS	2374	2855	6366	60	2359	553	1806	2373	137	2236









